

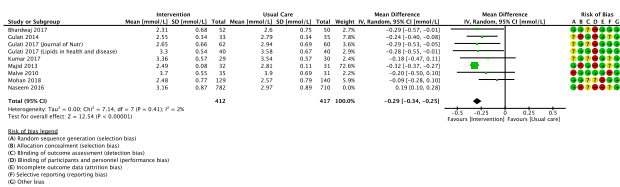


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**Table 1: Summary of findings assessing the effect of diet only interventions compared to usual care on CV risk in adult South Asians**

Outcomes	Anticipated absolute effects* (95% CI)		No. of participants (studies)	Certainty of the evidence (GRADE)
	Risk with Usual Care	Risk with Diet		
<b>Triglycerides</b>	The mean triglycerides was 1.15 mmol/L	The mean triglycerides in the intervention group was 0.04 mmol/L lower (0.12 lower to 0.04 higher)	480 (4 RCTs)	⊕⊕⊕⊕ HIGH
<b>HDL-c</b>	The mean HDL-c was 1.22 mmol/L	The mean HDL-c in the intervention group was 0.02 mmol/L higher (0.03 lower to 0.07 higher)	2434 (10 RCTs)	⊕⊕○○ LOW <sup>a,b</sup>
<b>HDL-c - No drugs</b>	The mean HDL-c - No drugs was 1.05 mmol/L	The mean HDL-c - No drugs in the intervention group was 0.01 mmol/L higher (0.07 lower to 0.09 higher)	494 (6 RCTs)	⊕⊕⊕○ MODERATE <sup>c</sup>
<b>HDL-c - Drugs</b>	The mean HDL-c - Drugs was 1.17 mmol/L	The mean HDL-c - Drugs in the intervention group was 0.03 mmol/L lower (0.01 lower to 0.06 higher)	1940 (4 RCTs)	⊕⊕○○ LOW <sup>d,e</sup>
<b>LDL-c</b>	The mean LDL-c was 3.09 mmol/L	The mean LDL-c in the intervention group was 0.29 mmol/L lower (0.34 lower to 0.25 lower)	829 (8 RCTs)	⊕⊕⊕⊕ HIGH
<b>Systolic Blood Pressure (SBP)</b>	The mean Systolic Blood Pressure (SBP) was 126.50 mmHg	The mean Systolic Blood Pressure (SBP) in the intervention group was 1.94 mmHg lower (3.83 lower to 0.05 lower)	623 (5 RCTs)	⊕⊕⊕⊕ HIGH
<b>Diastolic Blood Pressure (DBP)</b>	The mean diastolic Blood Pressure (DBP) was 81.06 mmHg	The mean Diastolic Blood Pressure (DBP) in the intervention group was 1.34 mmHg lower (2.6 lower to 0.09 lower)	623 (5 RCTs)	⊕⊕⊕⊕ HIGH



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## HEALTH CARE SYSTEM DESIGN AND VIRTUAL DELIVERY SYSTEM: CARDIOVASCULAR REHABILITATION ACCESS AND PARTICIPATION RATES DURING COVID19 PUBLIC HEALTH EMERGENCY

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**BACKGROUND:** Access to Cardiovascular Rehabilitation (CR) is a standard of care for cardiovascular disease and a determinant of health. The Central East Cardiovascular Rehabilitation and Secondary Prevention program (CECR) is a region-wide system delivered by a regional workforce at 16 community sites with approximately 3700 participating annually reflecting high rates of acceptance of eligible patients post

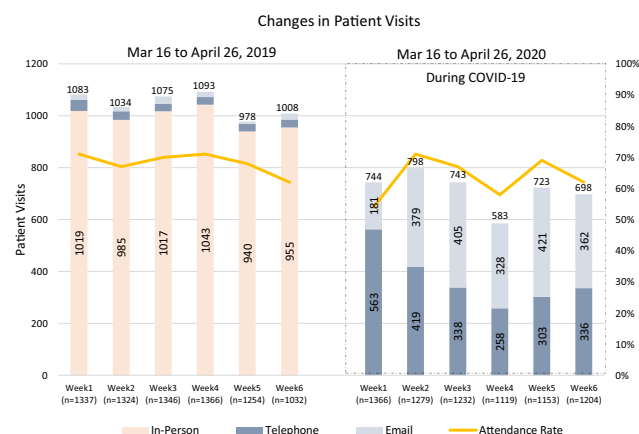
referral (70%+) and completion (60%) with equitable access (gender, age, travel time, SES). The March 17th, 2020 Emergency Management and Civil Protection Act to limit spread of COVID-19 closed non-essential services and limited group activity effectively terminating on-site programming. The CECR centralized referral-acceptance processes enabled uninterrupted referral services and the immediate (one week) transition to virtual CR programming (vCR).

**METHODS AND RESULTS:** We anticipated that emergency management act would negatively impact CR access and participation. Regional referral processes continued unaltered. vCR replaced on-site workflow with individual telephone and email visits supported by interactive technologies including web based, home exercise video support, and a mobile application. CECR staff collected data at each point of care in a regional database from referral to discharge. We compared measures of access and participation for a 6-week period of vCR (March 16, 2020 to April 24, 2020) to the same time period from the previous year. We separately evaluated participation for those who started before and during the emergency act. Table 1 Access. Referral processes were effective with no fall in overall referrals. Hospital referrals increased due to automated processes. Widespread term office closures limited community referral short-term. Figure 1 Participation. The CECR was able to retain participant volume during the COVID-19 period. Patient acceptance of vCR exceeded 90%. Only 9% declined vCR. Attendance remained stable through the 6 weeks. Attendance rate vs scheduled was 85% of the comparable period. (2945/4601 vs 4524/6032) of onsite programming.

**CONCLUSION:** Despite the COVID-19 public health emergency, the region wide CECR infrastructure maintained patient access and enabled seamless transition to a new vCR strategy. Patient acceptance of vCR was extremely high. Adherence to vCR was only slightly reduced compared to our traditional programming. A region wide community sited service with vCR was effective during a public health emergency. Central referral and vCR techniques maintained continued secondary prevention services region-wide. Based on this experience, future exploration of hybrid programming combining on-site, and virtual CR is worthwhile and may be an alternative in low population population regions.

**Table 1 – Access.**

Access	March 16 – April 24, 2019	March 16 – April 24, 2020	% Change from Pre-COVID Period
Total referrals	768	1020	+32.8%
Eligible Referral	646	715	+10.7%
Accepted	367	Not available at submission	-
Referral Source			% Change (in Percentage of all Referrals) from Pre-COVID Period
Community Total	275 (35.8% of all Referrals)	45 (4.4% of all Referrals)	-87.7%
Hospital	491 (63.9% of all Referrals)	967 (94.8% of all Referrals)	+48.4%



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**HIGH INTENSITY INTERVAL TRAINING AFTER STROKE AND TRANSIENT ISCHEMIC ATTACK: A RANDOMIZED CONTROLLED TRIAL**

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**BACKGROUND:** High intensity interval training (HIIT) has emerged as a potentially effective method for increasing cardiorespiratory fitness (CRF) among clinical populations, but its effectiveness remains to be demonstrated among stroke patients. Aim: To compare the effect of a 6-month HIIT program with a moderate intensity continuous exercise (MICE) program and a control group in terms of CRF, cardiovascular risk factors, cognitive function, anxiety and depression markers with a 12-month follow-up in patients with prior ischemic stroke or transient ischemic attack (TIA).

**METHODS AND RESULTS:** This randomized controlled trial included 52 participants (mean age:  $69.2 \pm 10.7$ ) divided into 3 groups: HIIT, MICE and control. Forty participants completed the 12-month follow-up. CRF and secondary outcomes were assessed at baseline after the 6-month intervention and at a 12-month follow-up. Results: A significant interaction effect ( $p < 0.001$ ) indicated that HIIT and MICE programs provide a similar increase of CRF compared with the control group. Despite a late decrease, this improvement persists 6 months post-exercise ( $p < 0.01$ ). The two exercise programs also induced a comparable increase in self-reported physical activity and cognitive function as well as a decrease in anxiety and depression markers. Participants in both the HIIT and MICE programs demonstrated a very good degree of acceptability.

**CONCLUSION:** Results show that HIIT and MICE induce similar improvement in CRF, self-reported physical activity, cognitive functions and anxiety and depression markers among patients with prior ischemic stroke or TIA, which appears to suggest that HIIT may be an effective and safe alternative to standard exercise recommendations.

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**IMPACT OF CARDIAC REHABILITATION ON 6-MONTH ADHERENCE TO CARDIOVASCULAR PHARMACOTHERAPY: INSIGHTS FROM THE AMI-OPTIMA2 STUDY**

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**BACKGROUND:** Evidence-based cardiovascular (CV) pharmacotherapy is associated with reduced risk of adverse CV outcomes after an acute coronary syndrome (ACS). Nevertheless, adherence to CV pharmacotherapy following ACS is often suboptimal. CV rehabilitation (CR) improves well-being. However, it remains uncertain whether CR can enhance adherence to CV medications. Therefore, we aim to determine the impact of CR on 6-month adherence to CV pharmacotherapy in secondary prevention of patients ACS.

**METHODS AND RESULTS:** We conducted a prospective observational cohort study of patients hospitalized for ACS at five Québec hospitals, during 2016-2018. We enrolled all patients who survived up to hospital discharge and who could give informed consent. We determined 6-month adherence by direct contact with the patients' pharmacies to review prescription refills. The primary endpoint was 6-month adherence to all of these drugs (dual anti-platelets, beta-blockers, hypocholesterolemiants, angiotensin pathway inhibitors). The secondary endpoints were adherence to each individual class of CV medication. Adherence was determined by measuring the proportion of days covered (PDC). PDC was measured both as continuous and categorical variables. Suboptimal adherence was defined as  $PDC < 80\%$ . We compared the 6-month adherence among patients who undertook CR to patients who did not have CR. We used inverse probability weighting to adjust for various factors which may have influenced the referral for CR and confounded the impact of CR on 6-month adherence such as age, sex, coronary angioplasty, marital status, education and occupation. There were 318 patients with complete data. Their mean age was  $66 \pm 12$  years and 30% were females. Of these patients, 152 undertook CR and 166 received standard follow-up. The mean age was 68 and 64 years, respectively. The proportions of females were similar in both groups. Overall PDC were  $96\% \pm 13\%$  vs  $93\% \pm 17\%$ ; 7.2% and 11.2% patients had 6-month suboptimal adherence, respectively in patients who had CR vs patients without CR. After inverse weighting adjustment, CR was independently associated with improved adherence only with hypocholesterolemiants (Table 1).

**CONCLUSION:** CR was not associated with improved 6-month overall adherence to CV medications. However, patients who undertook CR were more adherent to hypocholesterolemiants than patients without CR. It is conceivable that CR programs may have emphasized more on cholesterol target than on overall adherence to CV medications. CR programs should reinforce further the importance of CV pharmacotherapy to CR participants to improve the adherence to all ACS medications.